

We Claim:

1. A chlorine gas generator for disinfecting comprising:
  - a vented container;
  - a solid chemical candle disposed within said vented container, said candle comprising an ignition layer, a chlorine generating segment including metal powder as fuel, an oxygen source including one or more alkali metal chlorates or alkali metal, a metal chloride, and a chlorine source; and
  - an igniter for igniting the chemical candle from the outside of the container.
2. The chlorine gas generator as in Claim 1, wherein said ignition layer further comprises metal powder, cobalt oxide, metal oxide and an alkali metal chlorate.
3. The chlorine gas generator as in Claim 1, further comprising an insulating material within the container and surrounding the chemical candle.
4. The chlorine gas generator as in Claim 1 wherein the igniter further comprises a thermal igniter coil connected by wires to the outside of the container.
5. The chlorine gas generator as in Claim 1 wherein said chlorine generating segment of the chemical candle is comprised of two or more layers of varying composition such that the layer adjacent to the ignition layer is relatively richer in fuel and the layer or layers disposed at a greater distance from the ignition layer are relatively richer in chlorine generating compound.

6. A chlorine gas generator as in Claim 1 where the chlorine generating segment includes a binder.

7. A process for generating chlorine gas comprising the steps of:

- igniting an ignition segment consisting of metal powder, cobalt oxide, metal oxide and an alkali metal chlorate;
- containing the products of combustion in a container and adjacent to a chlorine generating segment consisting of metal powder as fuel, one or more alkali metal chlorates or perchlorates as an oxygen source, a metal chloride as a chlorine source (and a metal oxide catalyst) for propagating the combustion to the chlorine generating segment and complete burning thereof.

8. A self-contained device for generating chlorine-oxygen comprising an oxygen-chlorine generating chemical candle, a confinement chamber housing the candle, means for igniting the candle at one end of said chamber, and means for penetrating of chlorine- oxygen gas mixture, generated by the candle after ignition to environment.

9. The self-contained device according to claim 8 for use in sanitizing swimming pools, small water supplies and sewage tanks.

10. The self-contained device according to claim 8 for destroying biological warfare

agents.

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